

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-18. (cancelled)

19. (New) A self-expanding and self-undercutting bolt, comprising a dowel and a counter-dowel:

said dowel including:

a fastening end configured to be rotatably driven;

a first screwing end opposite to the fastening end;

a ring connected to the first screwing end and having expansion lugs for forming an undercut in a hole in which the bolt is to be fastened;

said counter-dowel including:

an expansion core;

a second screwing end on one of opposite sides of the expansion core and threadedly engageable with the first screwing end for screwing the counter-dowel to the dowel; and

an anti-rotation head on the other side of the expansion core, and radially projecting beyond a nominal diameter of the dowel to engage a wall of the hole in which the bolt is to be fastened to prevent rotation of the counter-dowel about an axis of the bolt.

20. (New) The self-expanding and self-undercutting bolt according to claim 19, wherein the counter-dowel is coaxial with the dowel when the counter-dowel is screwed to the dowel.

21. (New) The self-expanding and self-undercutting bolt according to claim 19, wherein the fastening end of the dowel head comprises:

an external thread; and

a pin configured to be engaged and rotatably driven by a tool.

22. (New) The self-expanding and self-undercutting bolt according to claim 19, wherein the dowel further comprises an incipient fracture portion, and the ring is connected to the first screwing end of the dowel by the incipient fracture portion which is configured to fail at a predetermined torque level that occurs before the counter-dowel is fully screwed to the dowel, thereby permitting the counter-dowel to be further screwed to the dowel after the ring and the expansion lugs are disconnected from the first screwing end due to the failure of the incipient fracture portion.

23. (New) The self-expanding and self-undercutting bolt according to claim 19, wherein the first screwing end of the dowel comprises an internally threaded bore, and second screwing end of the counter-dowel has a matching external thread configured to be screwed into the bore.

24. (New) The self-expanding and self-undercutting bolt according to claim 19, wherein the expansion lugs comprise teeth for forming the undercut.

25. (New) A self-expanding and self-undercutting bolt, comprising a dowel and a counter-dowel:

said dowel including:

a fastening end configured to be rotatably driven;

a first screwing end opposite to the fastening end;

a ring connected to the first screwing end and having expansion lugs for forming an undercut in a hole in which the bolt is to be fastened;

said counter-dowel including:

an expansion core;

a second screwing end on one of opposite sides of the expansion core and threadedly engageable with the first screwing end for screwing the counter-dowel to the dowel; and

an anti-rotation head on the other side of the expansion core to prevent rotation of the counter-dowel about an axis of the bolt;

wherein

the dowel further comprises an incipient fracture portion, and the ring is connected to the first screwing end of the dowel by the incipient fracture portion which is configured to fail at a predetermined torque level that occurs before the counter-dowel is fully screwed to the dowel, thereby permitting the counter-dowel to be further screwed into the dowel after the ring and the expansion lugs are disconnected from the first screwing end due to the failure of the incipient fracture portion.

26. (New) The self-expanding and self-undercutting bolt according to claim 25, wherein the counter-dowel is coaxial with the dowel when the counter-dowel is screwed to the dowel.

27. (New) The self-expanding and self-undercutting bolt according to claim 25, wherein the fastening end of the dowel comprises:

an external thread; and

a pin configured to be engaged and rotatably driven by a tool.

28. (New) The self-expanding and self-undercutting bolt according to claim 25, wherein the first screwing end of the dowel comprises an internally threaded bore, and second screwing end of the counter-dowel has a matching external thread configured to be screwed into the bore.

29. (New) The self-expanding and self-undercutting bolt according to claim 25, wherein the expansion lugs comprise teeth for forming the undercut.

30. (New) A method of fastening a guard rail to a concrete slab by means of a self-expanding and self-undercutting bolt of claim 25, the method comprising:

forming a hole in the slab;

axially driving the bolt to a desired depth in the hole;

rotationally driving the dowel, while the counter-dowel is static due to an engagement of the anti-rotation head with the hole, to form an undercut in the hole until the incipient fracture portion fails and separates the first screwing end of the dowel from the expansion lugs which are locked in the undercut;

further rotationally driving the dowel after the incipient fracture portion has failed to draw the counter-dowel toward the dowel; and

fastening the guard rail to the slab by engaging a nut with the fastening end of the dowel.